

Remarks

The non-final Office Action mailed August 21, 2009, which rejected claims 19 and 21-41. In response, claims 19 and 30 have been amended and claims 42 and 43 have been added.

Independent claims 19 and 30 have been amended to recite “*thereby forming a common rotational axis for the hub and the center of rotation of the track.*” The amendments are supported at least by page 9, lines 19-24 of the Specification.

Claims 42 and 43 each generally feature “*the center of rotation of the annular track of the disc member is offset from the central axis of the hub by a predetermined value, wherein the bias force forms a common rotational axis for the hub and the center of rotation of the track by displacing the disc member by the predetermined value.*”

Support for these newly added claims include at least FIGS. 2-3 as well as in the specification at page 9, line 30 to page 10, line 5.

These amendments are proper, do not introduce new matter or narrow the scope of the claimed subject matter, and serve to place the application in better condition for continued examination and allowance.

Furthermore, these amendments merely make more explicit what would have been implicitly understood by a skilled artisan from the original claim language, and so the amendments do not narrow or otherwise change the scope of the subject matter over what was previously presented, nor will these amendments have any preclusive effects in any subsequent proceedings involving the issued patent.

Rejection of Claims Under 35 U.S.C. §103(a)

Claims 19, 21, 26, 27, 30, 31, and 36 were rejected as being unpatentable over U.S. Patent No. 6,421,199 to McKenzie et al. (“McKenzie ‘199”) in view of U.S. Patent Application No. 2002/0059718 to Watanabe et al. (“Watanabe ‘718”). Dependent claims 22-23 and 32-33 were rejected as obvious over McKenzie ‘199 in view of Watanabe ‘718 and further in view of U.S Patent No. 6,971,154 to Yoo et al. (“Yoo ‘154”). These rejections are respectfully traversed.

With respect to claims 19 and 30, neither McKenzie ‘199 nor Watanabe ‘718 teaches or suggests *“a hub with a central axis, the hub supporting a disc member having an annular track with a center of rotation offset from the central axis,”* as claimed. Rather, both references teach to write a track to a disc so that the track is concentric with the center of the disc, and then to center the disc on a hub to align the track center with the central axis of the hub.

McKenzie ‘199 explicitly teaches that “tracks are concentric with the average OPR position error of the disc OD.” See e.g., col. 5, lines 49-54. As such, the tracks are centered about the disc center and cannot meet the claimed limitation of “an annular track with a center of rotation offset from the central axis.” Moreover, McKenzie ‘199 teaches the writing of tracks to the disc after correcting for OPR position error. See e.g., FIG. 5, col. 5, lines 33-48. As a result, any written would never be offset from the rotational center of the disc and hub, as required.

Watanabe ‘718 further explicitly teaches a disc medium that “is centered with respect to a rotary shaft so as to be mounted to a spindle motor,” before annular tracks are written. See e.g., paras. [0011], [0047], and [0057]. Consequently, any annular track will

have center of rotation that is the same as the center of rotation for the hub and the disc. Thus, the Watanabe '718 reference fails to teach an annular track that has a center of rotation that is offset from the center of rotation for the hub.

Therefore, a skilled artisan would not find that either McKenzie '199 or Watanabe '718 teaches or suggests an annular track with a center of rotation offset from the central axis, as claimed.

Moreover, the cited references fail to teach or suggest axially aligning the track center of rotation with a central axis of the hub to create a common rotational axis during contact between the innermost surface of the central mounting aperture and the outer cylindrical surface of the hub.

Specifically, McKenzie '199 teaches the use of a pusher mechanism 412 to advance the disc relative to the second hub 404 to minimize the average OPR position error, thereby aligning the center of the tracks (and the center of the disc) with the central axis of the hub. See e.g., FIGS. 6-7 and col. 6, lines 38-45. A skilled artisan would clearly understand that the contact between the hub and disc cannot, as taught by McKenzie '199, result in the creation of a common rotational axis between the annular track and the hub, as presently claimed.

Further, Watanabe '718 generally teaches centering the disc with respect to the hub so that a uniform annular gap is formed around the hub. See e.g., FIG. 3 and para. [0047]. As a result, Watanabe '718 teaches the opposite of the claimed contact between the hub and disc member during rotation and makes the creation of a common rotational axis between the annular track and the hub impossible. Hence, a person of ordinary skill in the art would not find any reasonable suggestion of a common rotational axis being

created between the track and the hub while contact exists between the hub and disc member.

In sum, neither McKenzie '199 nor Watanabe '718 teach or suggest all the presently claimed subject matter. McKenzie '199 and Watanabe '718 both teach the rotational alignment of a disc and a hub without providing an offset annular track. Meanwhile, the cited references teach the manipulation of the discs so that no contact between the disc and hub is present. Accordingly, reconsideration of the rejection of claims 19 and 30, and for the claims depending therefrom, are respectfully requested.


In addition, claim 30 further features "*providing a disc member with an annular track having a track center offset from a center of the disc member.*" In view of the foregoing discussion, it is clear that neither reference teaches or suggests this language. Indeed, both McKenzie '199 and Watanabe '718 teach away from this language by expressly providing a track center that is aligned with the center of the disc. As such, reconsideration and withdrawal of the rejection of claim 30, and for the claims depending therefrom, are further respectfully requested on this basis.

Conclusion

This Response is intended to be a complete response to the non-final Office Action mailed August 21, 2009. The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the application.

Should any questions arise concerning this Response, the Examiner is cordially invited to contact the below signed attorney.

Respectfully submitted,

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